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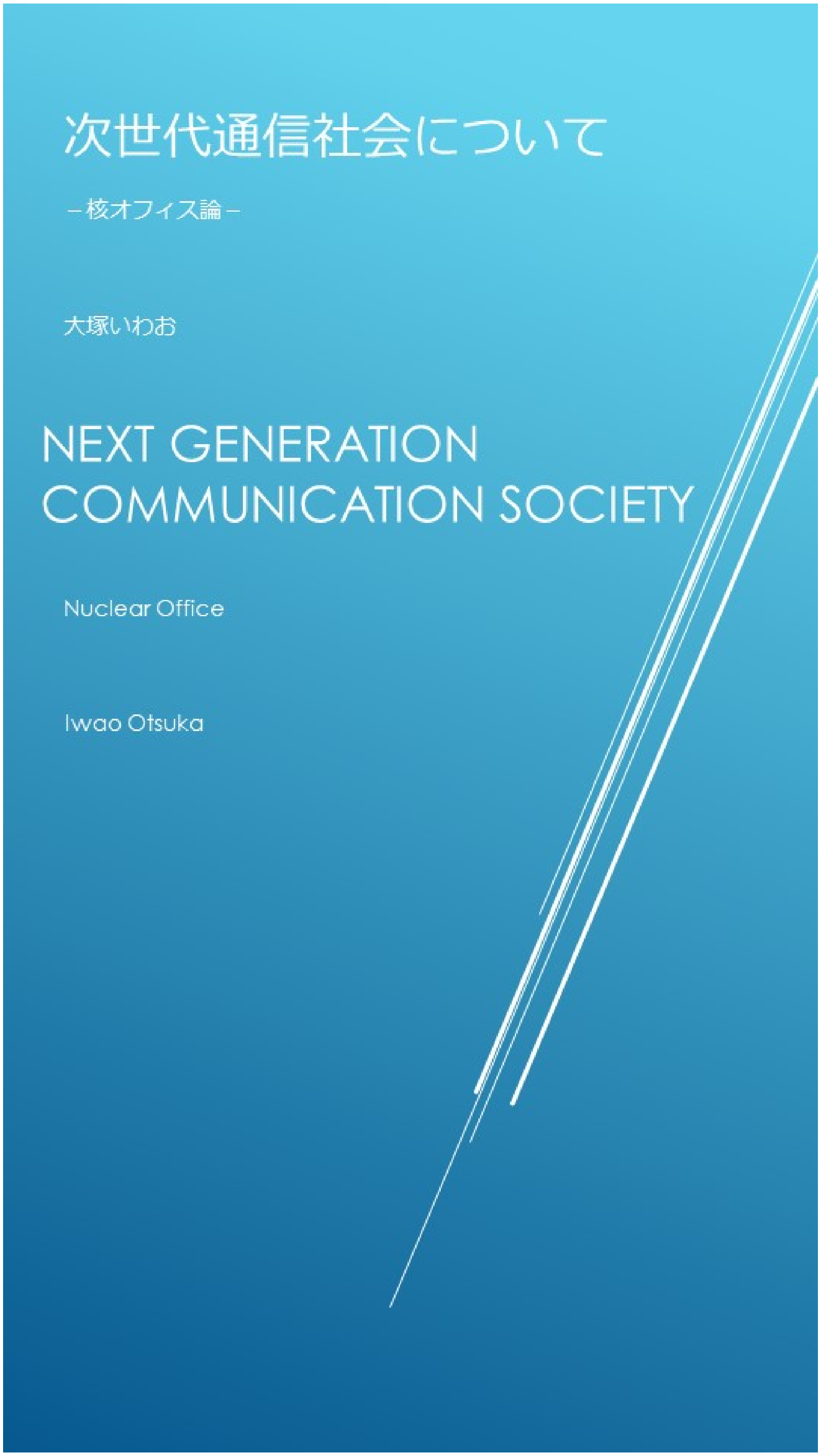

次世代通信社会について

－核オフィス論－

大塚いわお

NEXT GENERATION COMMUNICATION SOCIETY

Nuclear Office

Iwao Otsuka

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Next generation communication society

Iwao Otsuka

Traffic people and communication people

[Overview]

The classification of humans in society is broadly divided into "traffic type", which prefers physical movement, and "communication type", which tries to complete a single business task without physical movement. It is considered that there is a "mobile communication type" person having both of these characteristics.

[Text]

The author believes that people in society are largely divided into two types: "transportation type" and "communication type".

Here, a “traffic-type” person is a type of person who likes to go out here and there by car, train, or on foot. It is a type that prefers to move in physical space, such as vacations at sightseeing spots, mountain climbing, temple and pilgrimage.

On the other hand, a "communication-type" person is a person who uses Internet banking, mail-order sales, or telecommuting, does most of his errands using telecommunications without leaving home, and almost moves in physical space. A type that prefers not to.

Conventionally, "communication" humans are often treated as "withdrawal" as if they were morbid because they do not go out so much. However, in practice, "communication" people are also actively moving psychologically.

For example, when you enjoy surfing the net, you stay physically at home all the time, but you do not move, but the screen of your computer repeatedly connects directly to servers in various places in the world during surfing In that sense, a "communication" person who enjoys surfing the Internet can be said to be a traveler who travels around the world instantly.

The “mobile (communication) type” person has both the characteristics of “traffic type” and “communication type” as described above. Specifically, they prefer to talk to others on their mobile phones or connect to the Internet each time while traveling around on transportation or on foot.

Considering this way, from the above explanation,

(1) "Traffic pure type" Only physical movement is preferred, and communication is not preferred.

(2) "Communication pure type" It doesn't like physical movement, it can be done by communication.

(3) "Mobile communication type = both traffic and communication type" Both physical movement and communication are preferred.

It can be further classified as follows.

In the old days when telephone and the Internet were not widespread, it can be said that there were many "transportation type" people. However, it is not the case that they did not use communication at all, and it is thought that they often exchanged letters with remote parties by mail.

Now that mobile phones have become widespread, the “mobile communication” type (3) people may account for the largest percentage of the total. What is clear is that with the spread of high-speed communication lines represented by optical fiber networks, the total number of “communication-type” people is gradually increasing. The "traffic-type" people may be on a downward trend. It is believed that this trend will be further accelerated by shifting from working in downtown offices to working from home.

Also, under the present circumstances, it is impossible to live with "traffic only" and "communication only", and it is necessary to combine the two in some form. For example, a “communication pure” person who wants to complete a series of things by communication is a courier or a postman who physically moves luggage such as mail-order goods, etc. Not satisfied.

(c) 2003.3 First appearance

Next generation communication society

Spatial connection function of communication and social change

(This is a study of what the future of a society with an advanced communication environment will be, and phenomena such as the ubiquity of the city center (central area). It is a content that preempts a ubiquitous social theory.)

1. Introduction (space connection function)

Discussions on the traditional relationship between communications and society

(1) The theory of the "information society", that is, the emphasis on the information (communication content) that flows on a communication line, that is, what is transmitted using the communication line. It points out the expansion and diversification of the amount of information flowing on a communication network, where the viewpoint is placed on the "information" itself flowing on a communication line ([Yoshii 1996] etc.).

(2) "Broadcasting / communications media" theory, that is, the emphasis placed on the use of broadcasting / communications equipment (telephones, televisions, etc.) at both ends of a communication line and serving as an interface with the user ([Yoshimi et al. 1992] etc.).

(3) The theory of "social communication", that is, the emphasis on the aspect of communication between people that can be achieved using communication (research on network communities formed by personal computer communication, etc.)) ([Ikeda 1997] etc.).

Was mainstream.

This paper, unlike the above viewpoints, summarizes the changes in society as a result of the sophistication of communications, from the perspective that the essence of communications lies in the connection of geographic spaces that are far apart from each other.

In this paper, the content of the information flowing on the communication network is not specifically treated. Focusing on the fact that the flow of information flowing in real time over communication lines connects different spaces and eliminates the sense of distance. By connecting communication lines to one another in a complex manner, a plurality of people are simultaneously connected with a distance equal to zero. I think this is an important aspect of the function of communication.

Communication has a function of connecting and connecting physical and geographical spaces separated from each other, in other words, a function to be called a “spatial connection function”. That is, communications, no matter how far away from each other, once connected, do not feel that distance at all. In other words, it is possible to make two physically separated points physically feel as if they are at the same point that is attached to each other.

Coupling between two different points is caused by sending a sufficient amount of unique information possessed by each point to each other's point via a line. The enhancement of the spatial connection function of communication and the progress of computerization are deeply connected. However, in discussions on communications up to now, spots hit only the content and amount of information flowing through the line, and there seems to be no interest in the function of spatial connection.

The "spatial connection function" of the communication can be verified, for example, by telephone. Once connected, you can hear any distant sound as if it were coming from near you (your ears) [Gumpert 1987]. Alternatively, in the relay of a television broadcast, the location of the relay destination (for example, the United States) and the location of the relay (for example, Japan) are interconnected within an audiovisual range (each is directly interviewed with the other party's location). By having a sense as if there is a connection, the spaces can be connected to each other and each space can be shared with each other.)

Even in e-mail using the Internet or personal computer communication, on the other hand, since the written content reaches the other party instantly without feeling the time and distance, it is as if the memorandum is handed from the next person as if by hand. It is possible to acquire the contents of the mail with the same feeling as, and it can be said that it supports the space connection function of communication.

In this paper, it is the nature of communication that individuals are interconnected in real time regardless of the distance they are placed, and the spread of instantaneous connections between people is expanding worldwide, in the next generation communication society. I think there is.

2. Decrease in territorial borders (locality / locality)

Communication has the function of uniting distant regions as different geographical spaces into one.

From any of the connected devices, regardless of how remote the device is geographically, it is instantly connected to other devices as if they were "equally zero distance" . In the case of communication, the connection feeling is almost the same no matter how far apart (for example, the length of time spent waiting after dialing by telephone and connecting to the other party is the same for local calls, toll calls, and international calls). And almost instantaneous), and distance has little effect on human psychology. No matter how far away you are, your opponent will feel right away.

No matter where you are or where you are, once they are connected by communication, they are connected regardless of how close they are to the same distance of zero. In that sense, the concept of the region itself has no meaning. In other words, it can be said that telecommunications have an out-of-region / out-of-ground margin function. Communication can be said to have the effect of reducing the sense of belonging to the community.

As telecommunications become more advanced, it doesn't make much sense where you live or work. Whether you live in a city or in a rural area, if you are connected by communication, you will be able to connect and share each other's spaces without difference, beyond the difference in geographical space. Can stand on an equal footing. Therefore, there is no difference between the conventional city / rural area and the central / suburban area.

In other words, until now, people's connections have been trapped by geography, but in the future, it will change to connections that go beyond geography through communication (transcend geographic space).

Therefore, the method of community generation is to create a space-constrained type of community generation (relationship between related facilities (station, city hall, post office, etc.) close to the distance, depending on conventional traffic (walking, railroad, car, etc.). From a centralized type) to a spatially transcendent type of community that takes communication into account (geographical constraints can be transcended by linking related facilities with high-speed and large communication lines, wide-area distribution) To take any free form).

In addition, as human relations have changed from the conventional type of completeness within the region to the type of openness outside the region, the local consciousness limited to a certain area such as the narrow oraga village and oraga town has been resolved. It is thought that there will be a rise in consciousness of leaving the region aiming at a more global nationwide-to-worldwide. In other words, a wide area where thoughts were freed from locality from the current generation where thoughts were restricted to a certain area (a strong sense of “local” consciousness and a narrow view to drive profit to an exclusive “local”) It is thought that a baton touch will take place in the next generation of communication oriented (broad view to consider the benefits of the global world).

Supplement) Phone and community building

At present, one-to-one connection between people by telephone is common, and does not correspond to many-to-many (like personal computer communication and the Internet). Telephone is not suitable for doing something jointly among multiple people at the same time. So, isn't it reasonable to see that telephones have not contributed much to building trans-regional communities, despite the indications of [Yoshimi 1993]? If the same communication line is used, an Internet mailing list that can perform many-to-many communication, for example, should be much easier to contribute to community building.

Supplement) Call charge system

With PC communication and the Internet, once the nearest access point is connected, it will be connected to all regions in Japan and the world at the same rate. PC and Internet users are most likely to benefit from the transcendence of telecommunications.

In contrast, existing phones (excluding mobile phones) are tied to distance. That is, the fee increases as the communication distance increases. As a result, connection between short distances is promoted, and connection between long distances is avoided. This does not take advantage of the transcendence of geographical space that communication has. This has led to the persistence of regionality.

3. Equalization of population distribution

People living in highly-developed areas can easily meet remote parties in all aspects of audio-visual systems, even if they do not live close to each other. In addition, it becomes possible to disperse at random from a densely packed form. Thus, the development of telecommunications helps to decentralize populations in overcrowded areas.

Alternatively, telecommunications can help activate geographically remote and depopulated areas because all spatial isolation is eliminated by instantaneous interconnections (although points that are too isolated from the outside world are difficult to logistics). Therefore it may not be possible). Until now, agriculture and forestry were the main industries in depopulated areas. However, with the development of telecommunications, besides agriculture, white-collar (conventional office workers), remote manufacturing and software manufacturing will be possible, and more people will migrate. In this regard, the development of telecommunications can be useful for promoting depopulated areas (creating places to earn income, correcting industrial bias, etc.).

In the end, the development of communications can help to move from a geographically uneven population to a state of even distribution.

4. Equalization of arbitrary points and "position freedom"

No matter where you are, once connected by communication, you will be connected to any other point with the same sense of close to zero, which means that communication is equivalent to all points (others). And the condition for performing an interaction). The fact that the relationship of an arbitrary point to another point is the same means that the point is the same no matter where the point is and that it is free. In this sense, communication brings freedom (freedom) from the geographic location where people reside. This phenomenon follows M.Weber's concept of “value freedom” (social science must be free from value judgments in order to maintain cognitive objectivity) (Free from geographical position).

The concept of "free location" emerges, for example, where a person making a mobile phone can communicate with another person without having to know the name of the current location or the location of the other party. ing. On the other hand, in the case of conversations by mail, it is necessary to fill in postcards and envelopes, always being aware of the address of the person and the other party (information on where they are). , Not "position freedom". If you do not specify your current location, you will not receive mail.

With the spread of mobile phones, the tendency to be able to be connected to any other point with the same feeling at any point without being particularly aware of where you are now (“position free” in terms of sense) is It can be said that it has become even stronger. Alternatively, in terms of communication costs, as long as you connect to the nearest (in the city) access point like PC communication and the Internet, the same charge (local call fee + provider connection) To be able to connect with a fee) also means that you can freely connect to any other point under the same conditions in terms of cost (in terms of cost), regardless of the point, or leaving the constraint of the point you are at "Position freedom").

5. Universalization of any point

The development of communications has made it possible to simultaneously access information emanating from a certain point from any point in the whole country or the whole world. For example, WWW homepage information registered by a local user with an Internet regional provider can be instantly accessed from anywhere in the world.

Considering the above facts in turn, the advancement of communication means that information unique to every point in the whole country (the whole world) can spread to the whole country (the whole world) in an instant (any point Generalization). At that point, culture that was previously limited to one region or region can now be easily universalized at the national level, and cultures that had been limited to each region meet and compete and cull each other. It is thought that it will fit.

Furthermore, at the next stage, the culture-creating individual will go directly to the nation without passing through the primary filter of local and regional acceptance. . Such things will be spread in one shot. Dissemination of information irrespective of locality and nationality through the WWW homepage on the Internet for each individual is considered to be a good example. In this sense, the locality of information is thought to be in the direction of disappearance.

6. The ubiquity of the city center (central area)

In a state where communication is developed, it is considered that a phenomenon such as "the ubiquity of the central location (city center) (a state where any point can instantly become the central location (city center)") occurs as described below. .

In the state of advanced communication networks, first of all, it is possible to immediately and immediately access a point which has been geographically central so far, wherever it is. In this case, since the point of access is directly connected to the center, the point of access is equal to the center of the access point in terms of centrality (city center), and as a result, all points of access are located in the center. Will be transformed.

Even if the central location (center of the city) is geographically concentrated in one location, the time required to access the central location by using a high-speed communication line can be reduced to zero, allowing access from any location at the same time. It is possible to realize the ubiquity of the central area (city center). It is similar to the case where geographical space can be exceeded by personal computer communication with a centralized host function. However, there is no merit in that high-speed lines need to be routed to all areas other than the central area (city center) as compared with the case where the central area (city center) is geographically dispersed. It is rather disadvantageous in terms of security (if a geographically concentrated central area (city center) is damaged, everything else will be useless).

Therefore, what is newly conceived is to produce a result in which the central area (center of the city) is geographically dispersed and interconnected by a communication line therebetween. In other words, a plurality of points connected by a communication line with zero sense of distance are connected to other points with zero sense of distance via the communication line connected to the points. The feeling of equalizing and equalizing countless points without a sense of separation is created. As a result, it is difficult to know where the center is and where the region is, and the degree to which all points can be equally centered (uniformity of the center) is increased. Any point can be instantly centralized (central location, city center) by having the possibility of being instantaneously connected to all other points connected by the line.

This solves the security problem of the central location (city center) function. Since the central function can be instantaneously performed at any point, the functions of the central government and corporate headquarters are not affected by the effects of the earthquake or war.

In any case, the ubiquity of the central area using communications will bring about a regional (spatial) fusion between the central and rural areas. Or eliminate central and regional disparities and conflicts. Or eliminate the disparity between regions. Every region stands on an equal footing without any geographic handicap.

With the advancement of communications, various institutions that have traditionally been located in a geographic center (city center) no longer need to be geographically located in the center of the city. Because of the transcendental capabilities of telecommunications, every point can be centralized (by ensuring immediate access to it), so build institutions wherever you like, regardless of location (Although, in practice, some restrictions on logistics need to be considered). Actually, even though research institutes are located in places where transportation is not always convenient, high-speed communication links between Japan and the world can produce research results that do not feel geographically handy. Seems to be.

Until now, workers at public and private institutions that have been located in the central area (city center) of the territory are dispersed in distant and scattered places and all communicate with each other by high-speed communication lines In addition, the substance of the institution is established in such a way that it is distributed to the places where each worker is present, so that the institution itself may not have a building or the like. In that sense, government agencies and business entities do not need to exist tangibly.

In the end, the development of communications encourages equalization of the centrality (the degree of centrality) of different locations. Regardless of where you are, the characteristics of communications that behave as if you are right next to each other (equidistant distances) are the characteristics of communications (multimedia, etc.). Eliminate the composition.

7. Nationwide ubiquity

The ubiquity of the central area means the multi-nuclear dispersal (ubiquity) of the capital function (national function) at the national level. From the state where the center of the nation is concentrated only in a specific capital as it is now, it appears to the people as if they are equidistant from anywhere in the country.

With the advancement of telecommunications, government agencies (government offices), which should be at the center of society, do not have to be concentrated and constructed in places that are considered to be the central part of the country. If they are installed separately in different regions and connected by high-speed lines, a central government as a unified body that transcends geographical space will be created. Since each person (not a building) fulfills the function of the capital, if the people are connected by a line, the function of the capital can be fulfilled no matter where the person is.

Decentralization using communication of national functions promotes equalization between local and central areas. Even if you are in a rural area, you can enjoy the same living benefits as if you were in the central area (and vice versa). The border between the provinces and the center is blurred, and the concept of local autonomy (and the reversal of centralization) is lost.

Eliminating the distinction between local and central areas (the disappearance of “locality” and the local and central positions being at the same position) weakens the significance of local governments that have traditionally represented policies limited to certain areas Means that. This is because any region can access any other region with an equidistant sense, reducing the significance of restricting policies to regions. In the future, a shift from current, local-thought, generations dedicated to "local" interest induction to wide-area network generations, freed from regional constraints, will bring a variety of different values. The members of the political party who were spontaneously generated and juxtaposed across regions and regions, where members were tied to each other with the same value, and were trapped in the interests of each region where former members of parliament came from It is thought that this will be overturned.

Due to the ubiquity of the nation, the traditional relocation theory premised on the geographical concentration of capital functions will be fundamentally forced to be reviewed. This is because the transit of geographical space by communication makes it possible to realize a wide-area distributed capital function. It is more effective to disperse capital functions by using telecommunications than by transportation. This is because they can be connected instantly even at a distance. By utilizing communication, it is possible to distribute functions to more distant points.

8. Optimization of residence and work location

As communication progresses, individual optimal residence or work will be supported.

The fact that any point can immediately become the center indicates that from the viewpoint of the communication infrastructure, living at any point can provide almost the same advanced communication environment (such as the Internet). Regardless of where you live, you can access any other point as if you are at the same distance (zero distance), so you can choose any point and live and work there. This, in other words, shows that with advanced communication, people can continue to live in geographical locations that they consider optimal.

People no longer need to live near metropolitan areas, for example because of commuting time. Even if the transfer is made, the communication destination is simply changed to the changed work location, and there is no need to change the residence / work location. Once you've set up your home in a place you like, you can stay there forever. Standards for where to live have changed drastically from the point of being convenient for commuting, for example, as in the past, and even if it is a small town away from the conventional metropolitan area, the resident welfare will be more fulfilling If there is a large number of people who choose to live there, it is possible that a population migration will occur.

Alternatively, the use of mobile technology will enable the same high-level communication environment to be constantly maintained while moving geographically, so that people will be able to live as much as they do when settled. Can be It is possible to move freely like a migratory bird from season to season, such as a warm place if it is cold or a cool place if it is hot. As a mode of residence of the mobile office, a camping car, a mobile hotel (a collective dormitory for mobile workers), and the like can be considered.

9. Immobilization of life

As communication develops, it is expected that a transition from a dynamic society (a society in which people move in geographic space) to a static society (a society in which people cannot move in one place in geographic space) will occur. Monkey

With the advent of a communications-centric society, people are expected to sit still in front of communication terminals and remain immobile for long periods of time (same state as sitting in front of television all day). This is because, while staying at the same place (for example, in front of a desk where a personal computer is placed), a user can operate a communication terminal and quickly connect to various points one after another without any difficulty (internet surfing). This is the phenomenon that occurs.)

A long standing state is not a pathological phenomenon. Conventionally, trains and automobiles move spatially, but those inside are still sitting (or not standing and moving) in their seats. Even if the vehicle itself moves, it can be said that it is the same as communication, in that the person inside does not move still. Speaking of white-collar workers (general office workers), they often sit at their desks during work and do not move. Therefore, there is still a state where the human body does not move, and even if it is said that a communication-centric society has arrived and people will not move, the life pattern will not change at all (accordingly, to a communication-centric society). The transition should go smoothly), but the “immobility” of life is more thorough than it is now, because it does not involve transportation.

10. Conclusion (communication limitations and the need for transportation)

In order to determine the future development of communication, it is necessary to determine what can be replaced with communication and what is not with conventional communication using traffic.

In order to solve this problem, instead of examining the conventional alternative of traffic by communication (for example, [Suzuki 1992]), on the contrary, when people do not use communication, It is necessary to make a list of whether to try to communicate by using (moving one's own physical body in space).

At that time, it is assumed that economic factors such as a high communication line usage fee will be noticed (since it will eventually be cleared if communication develops).

In some cases, where communication at this time is not enough,

(1) If the meeting between people involves the movement of goods (logistics) at the same time, such as handing over physical materials such as electronic components at the meeting,

(2) Like banquets and meals, it may be necessary to share tactile sensation and smell other than audiovisual support supported by modern communication.

Although it is related to the above problems, it is conceivable that the response to the advanced communication society will be advanced by white-collar workers (clerks) and delayed by blue-collar workers (engineers). White-collar is mainly for office work, and materials to be created can be digitized by OA and can be freely distributed on a communication line, so that the benefits of communication can be obtained. This is because, for example, an automobile mechanic) mainly handles concrete objects, and cannot carry a material to be handled or a machine for handling the material on a communication line. Blue-collar workers have to travel by themselves to the site (the point where goods and machines are located) as usual, even if communications become more sophisticated.

In order for blue collar workers to benefit from communications, they need to be able to remotely control machines and supplies that are far away from themselves, for example, by remotely controlling a communications satellite robot. Such a mechanism is required. It should be noted that software manufacturers can exceptionally benefit from communication even in blue collar. Production means and products can be obtained online (for example, creating a program by remotely logging in to a remote workstation via a telephone line) or distributed (for example, distributing the program via the Internet or personal computer communication). is there.

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(Postscript) Reason for not working

2008.08

Ten years have passed since I wrote the above sentence, but the reality of Japanese society does not seem to be what I wrote above, but seems to be the same or rather the reverse.

The possible causes are summarized below.

The conditions under which employees working in companies, etc. can freely move and work anywhere they like without physically gathering in one place are much more prevalent than in the past due to the spread of the optical internet. I personally think that the conditions are now in place.

However, due to information leakage measures and security issues, companies do not like employees to work freely outside the office. For example, if you open a PC on the Shinkansen and work, your neighbors will see the screen and your company secrets will be leaked.

Another is the problem of counting working hours. In order for the company to count working hours, the longest working time, which has been done before, is that employees go to work at the company office by a certain time, work there, and encourage them to leave work. Is that it is easy to manage. This problem will not go away as firms continue to pay salaries on a working-hour basis.

After all, it may be the quickest way to keep an eye on employees to see if they are working properly, and to gather them in one place in the office and monitor them directly in real time. In this area, I personally think that monitoring the other party in a video conference may not be much different from the monitoring accuracy, but I want to keep the possibility that companies can directly give employees physical guidance and sanctions. I feel like it's kind of.

Furthermore, although this may be peculiar to a society that prefers collective behavior in Japan and East Asia, there seems to be a tendency to hate the individual behavior of employees and prefer to be together, preferably in a group. At the same time in the office, work together at the same time, work in the same place, have lunch at the same time, work together, work overtime, and work freely in physically disjointed places. It seems that there is some feeling that it is not desirable to do this.

Another problem seems to be how the company calculates and bears the expenses involved in creating and maintaining the residence and work space of employees who work without going to the company, such as the home and work space, and communication costs. . Isn't this criterion so obvious at the moment? In some cases, employees may have to work in order to secure an office space at home, and then renovate and renovate their homes in order to develop them, and the question of who will bear the cost will increase. Follow me. For this reason, it seems that companies may be reluctant to realize optimal housing and workplaces.

However, if you do not create a room for workers to work, you will not be able to work from home.

In order to solve this problem, there is a method of preparing and renting a unit work room, a unit office room, such as a unit bath, which can be assembled and disassembled and can be incorporated as a capsule in an existing house.

Alternatively, such work rooms and office rooms may be built from the beginning in suburban housing complexes, condominiums, and detached houses.

Another idea is to create a small private studio and an office room that also serves as a simple home near the suburban home, like an Internet cafe, so that anyone can easily borrow it each time. Can be

From the perspective of a traditional closed village society that is persistent even in Japanese rural areas and large cities, it is possible that suspicious strangers will come in, so it is possible that an exclusionary movement will occur, and it is necessary to pay attention and consider how to accept it in this regard It is.

(C) 1998.2 Otsuka Iwao

Regarding the progress of nuclear office

In a state where communication is highly developed, any space can be reached from any space at the same distance from each other, more precisely, without a sense of distance. When the spaces are connected to each other by a communication line while each space is made independent, even if the spaces are separated from each other, they can be perceived as a united space due to the spatial connection action of communication. If this is applied to an office, it is possible to maintain a unity by communication even if the offices of each department and each person are randomly distributed.

In the past, telephones were the most common means of communication in offices. In recent years, computer-based data communication has supported many-to-many communication, whereas telephones only supported one-to-one communication. It became easier to do. Along with this, the decentralization of offices in the form of the introduction of satellite offices and telework, and the independence of small offices represented by the term SOHO (Small Office, Home Office) are gradually progressing.

Conventionally, a distributed office has a configuration in which a head office in which a large number of organization members meet together has a satellite office for each individual or small group in a hanging (subordinate) manner. In other words, it was a satellite office based on the premise of a head office. In this case, the non-ubiquity (in geographic space) of the central functions of the office will remain. That is, the main members of the office must all commute to the same location of the head office, and must be collectively tied to the spatial location of the head office.

In addition, small and independent SOHOs are introduced only to small and independent, privately owned companies, etc., and large government offices and company organizations share the same vast space as before, with large numbers of people. It was customary to stay in large, non-independent offices of the form. In large non-independent offices, workers need to share the same geographic location, which imposes geographic space constraints.

The offices of large-scale government offices and corporate organizations in the future will form a group of individual offices, each of which has its own self-sufficiency, and which can be called the "nuclear (nuclear) office". By tying them together, it would be possible to freely assemble the organization without the constraints of geographical space. Even though small offices may be separated from each other, it is considered that they are connected to each other by a “spatial connection function” of communication to form a united network organization.

That is, with the advancement of the communication network, the head office is disassembled into a group of individual rooms for one person, and appears as an aggregate of "nuclear offices" as minimum units that can exist independently as offices. In this way, the "nuclear" state where the functions of the office are reduced to the ultimate and only the essential functions are extracted is the office minimum (the state with the minimum functions required to be established as an office) But you can call.

In the nuclear office, each person is a private room and is spatially isolated from the outside world, but communication lines allow communication with any other private room, and the openness of communication to the outside world is maintained. .

Disassembly of the head office into a nuclear office

(1) Separate offices to make office functions individual and independent,

(2) spatially disperse and disperse office locations;

It is considered that such a procedure is performed.

In a state where the head office has disappeared, the independent nuclear offices, each of which is composed of only one individual space, are gathered together to assemble the organization. An organization is formed by freely connecting cells at arbitrary locations such as a nuclear office with communication lines. The office assigned to each individual is in a state of being self-contained (one can stand alone).

The advantages of a nuclear office are:

(1) Persons who are separated from each other can be managed on a single organizational communication channel, and the organization can be freely created, modified, and maintained without depending on the geographical space. It is possible to have a universal ubiquity. In that respect, the nuclear office is an important key in realizing the ubiquity of the center and the ubiquity of the nation described above.

(2) By connecting the nuclear offices with a network, it is possible to construct an office system that can handle any type of organization. The organizational offices where each person works can be replaced without changing the geographical location of the office, so the organization can be changed freely. There is no need for moving work and no restructuring costs.)

Such a point can be considered.

The background to the emergence and spread of nuclear offices is that, apart from the development of communications,

(1) Increasing awareness of personal privacy, the resulting increase in the number of individual rooms (nuclearization) in existing homes, and the increase in independence due to the partitioning of individual office spaces. First thought. Or,

(2) Each individual tends to select a work location of their preferred location without being affected by geographical restrictions. In that case, the location at which they want to work differs for each individual (individuality for each individual appears. As a result, it is conceivable that each person's desired work location will be different for each person.

The (minimum) functions to be equipped in a nuclear office are:

(1) Work (secure a place to produce and create social functions, secure a place to learn, think, and judge)

(2) Communication (securing communication means with other nuclear offices, computer WAN facilities, etc.)

(3) Living (Ensuring comfortable living, air-conditioning and hot water facilities, etc.)

It is considered near.

The equipment required for a nuclear office is considered to be basically the same as the equipment required for a conventional satellite office. In a conventional office, printers and other devices that were shared by multiple people also need to have one device each. The spread of nuclear offices requires progress in downsizing and personalizing office equipment.

There are the following three forms of decentralization for each worker in the nuclear office.

(1) Telecommuting The office function is added to each household in the residence where the worker currently resides (such as a company residence). Remodel one or several rooms as offices.

(2) Telecommuting Collective capsule office is adopted. Buildings consisting of a collection of office private rooms are scattered around houses. The building will be a point where workers can go from home in minutes. Each office room is completely independent as a private room and locked. Contract each room individually with companies and government agencies.

(3) Mobile office The above office is a permanent office and cannot be moved because the location is fixed. The worker had to go there (or stay home if at home). The mobile office enables the office location to be changed flexibly by (a) making the office equipment smaller and more portable, and (b) making the living space of the office movable. .

For mobile offices, (a) is to always carry the necessary props (for example, a notebook computer with built-in camera and telephone function) necessary for building the office, so that one-touch nuclear office can be constructed on the go (one on the go) with one touch. It can be considered. Information outlets can be set up throughout the city (such as coffee shops), or you can use a mobile phone to contact other offices from any location. Regarding (b), like a car office, printers and facsimile machines can be installed in the car so that the nuclear office can follow the car wherever they go.

It can be said that an organization that has an independent mobile nuclear office and creates an organization by combining the mobile nuclear offices is the organization that has the most freedom in time and space.

The nuclear office is used by workers, but if school students and instructors construct and use similar environments, they will be "nuclear learning rooms and laboratories." In the past, each student and instructor had to settle for a fixed time in one common place by having independent study rooms and laboratories that could be separated independently and spatially. It can be set up in a very free way, linking people who are suitable for studying by degree of achievement or joint research that is geographically separated from each other.

The challenge at the nuclear office is to eliminate loneliness in the user's office and have a way to meet the conflicting demands of maintaining privacy in the user's office . In particular, it is necessary to consider ways to adapt to the Japanese corporate organization, which has adopted a system in which many people live in large rooms. As a countermeasure, it is conceivable to allow a colleague in other offices to simultaneously observe with a telescope.

(c) 1998.2 First appearance